OFFICE OF CONGRESSMAN EARL BLUMENAUER
APPROPRIATIONS REQUEST FORM
FISCAL YEAR 2011

Instructions

1. Please complete the entire form. **All fields are required.**
2. Please do not **bold**, underline, or *italicize* responses.
3. Request forms must be submitted as a Word document.
4. All completed request forms and any supplemental materials must be submitted via email to: **Appropriations.Blumenauer@mail.house.gov**
5. Please do not send more than one request per email.
6. All completed request forms must be submitted no later than **Friday, February 26, 2010**.
7. If you do not receive an email confirming receipt of your request within 48 hours of submission, please contact Stephanie Cappa in Congressman Blumenauer's Washington, D.C. office at 202-225-4811.

PLEASE NOTE: All appropriations requests submitted to Congressman Blumenauer's office will be made public on his website, as required by the House Committee on Appropriations.

Project Details

1. Project title: ONAMI Nanoelectronics, Nanometrology and Nanobiotechnology (N3I) Initiative

2. Organization name and address (the recipient of the funds)**:**

Portland State University
Portland, OR

Oregon State University
Corvallis, OR

Oregon Health and Science University
Portland, OR

University of Oregon
Eugene, OR

Oregon Nanosciences and Microtechnologies Inst
Corvallis, OR

3. Contact information

a. Project's primary contact: John Carruthers
b. Daytime telephone number/ mobile phone number: (503) 725-8929/[redacted]
c. Email Address: carruthe@pdx.edu
d. Project location (if different than organization's address):

Washington Contact:
Jennifer Schafer
Cascade Associates
202-554-5828/202-297-6037
jasca@cascadeassociates.net

4. Please describe the requesting organization's main activities.

Public University
Research, Development and Deployment activities

ONAMI is the first Oregon Signature Research Center. A cooperative venture among government and world-class nanoscience and microtechnology R&D institutions and industry in the Northwest, ONAMI was created to cultivate research and commercialization to advance the leading economic sector in Oregon, and expand the benefits of technology innovation to traditional and natural resource industries.

ONAMI fosters a deep reach into fundamental science for the next source of innovation and high-wage employment opportunities. By putting nanotechnology to work in microsystems, ONAMI members are taking these advances from the lab through to commercialization

5. Is this organization a public, private non-profit, or private for-profit entity?

Public

6. From what federal agency and account are you requesting funds (Please be specific –e.g., Department of Housing and Urban Development, Economic Development Initiatives account)?

Department of Defense
Office of the Navy
RDT&E
Line 3, Defense Research Sciences
PE # 0601153N

7. Briefly describe the activity or project for which funding is requested (no more than 500 words)**.**

This request addresses important applications of nanotechnology in three nanoscale areas: measurement/imaging, electronics, and biomedicine. The respective challenges in these three areas are: providing a "window" into the nanoscale world, evaluating nanoelectronics devices that will extend the "Moore's Law" scaling of integrated circuits, and providing tools that will enable discoveries and clinical applications in molecular-based medicine of the future. The integrating theme for these specific applications is that discoveries in one discipline may have a major impact on other disciplines. Examples include nanoscale chemical imaging at electronic device interfaces, nanoelectronic-based biosensors for point-of-care health management, nanoscale imaging of protein molecules in cells such as pluripotent embryonic stem cells, and nanoparticle-based diagnosis and drug delivery systems. There are Oregon companies that are directly interested in this work: FEI, the world's leading nanometrology company, Intel, the world's leading semiconductor manufacturer, Invitrogen, the first company to bring quantum dot detection into biomedicine, and Virogenomics, an OHSU-based company for commercializing biomedical technologies. We also have strong research partnerships with PNNL and the Western Institute of Nanoelectronics (UCLA). Projects are supported at all four ONAMI universities with an emphasis on collaborative research among all the universities. N3I is already seeing a 2X leveraging of appropriations funds into NSF and other grants. Also there is one

startup company formed in Oregon (Flash Sensors) to commercialize the research in nanoscale biosensors.

8. What is the purpose of the project? Why is it a valuable use of taxpayer funds? How will the project support efforts to improve the economy and create jobs in Oregon?

The purpose of the project is to seed high-risk research projects with DoD clients that will lead to research growth in Oregon (follow-on projects) and commercialized technology (both by industry incumbents and ONAMI-supported startup companies).

ONAMI's areas of innovation are right in the "sweet spot" (energy systems, green nanotechnology, nano-medicine breakthroughs) or in essential support (measurement) science of areas of social and economic importance – already identified in stimulus legislation as priorities.

Research funding has both direct stimulating effect (most funds go to graduate student, technician and researcher salaries) and investment effect (develop IP that is more likely to be commercialized in Oregon since the research was done here).

9. Has this project received federal appropriations funding in past fiscal years?

Yes

9a. If yes, please provide the fiscal year, Department, Account, and funding amount of any previous funding.

Department of Defense, Navy RDT&E Materials: $3.84M in FY10, $4.0 M in FY09, $2.0 M in FY08, $2.5M in FY07 and $2.5 M in FY06

<u>Funding Details</u>

10. Amount requested for this project: $5,000,000

11. Breakdown/budget of the amount you are requesting for this project (e.g., salary $40,000; computer $3,000):

Funds are primarily for Research and Development and will be competitively awarded among the four universities and Oregon-based PNNL group, to research teams that contribute to the core research goals. ONAMI is committed to the commercialization of its research findings where appropriate. Funds will not be used for construction; however some small portion of the funds may be used for planning or programming.

12. What is the <u>total</u> cost of the project?

$20,000,000 federal/$7-13 million state and private

13. Is this project scalable (i.e., If partial funding is awarded, will the organization still be able to use the funds in FY 2011?)?

Yes

14. What other funding sources (local, regional, state) are contributing to this project or activity? (Please be specific about funding sources and funding amounts)

ONAMI has received over $81 million in matching funds from state and private sources since FY04, and ONAMI member researchers have won over $82 million in competitive federal and private awards during the same period. During FY09 alone, ONAMI researchers booked a total of $35.4 M of which only $7M was in congressionally mandated monies, demonstrating growing success and momentum for this investment.

15. Please list public or private organizations that have supported/endorsed this project.

NWUAV Propulsion Systems
Battelle Memorial Institute/Pacific Northwest National Laboratory
Hewlett-Packard
FEI Company NanoTech
State of Oregon (ONAMI receives funds as a Signature Research Center)

Please return this form no later than Friday, February 26, 2010 via email to:

Appropriations.Blumenauer@mail.house.gov

Washington, D.C. Appropriations Contact for Rep. Earl Blumenauer: Stephanie Cappa, 202-225-4811, Stephanie.Cappa@mail.house.gov

Oregon Appropriations Contact for Rep. Earl Blumenauer: Sarah Masterson, 503-231-2300, Sarah.Masterson@mail.house.gov